U.S. AIR FORCE

AMP Software Version 7.0

SIWG-10

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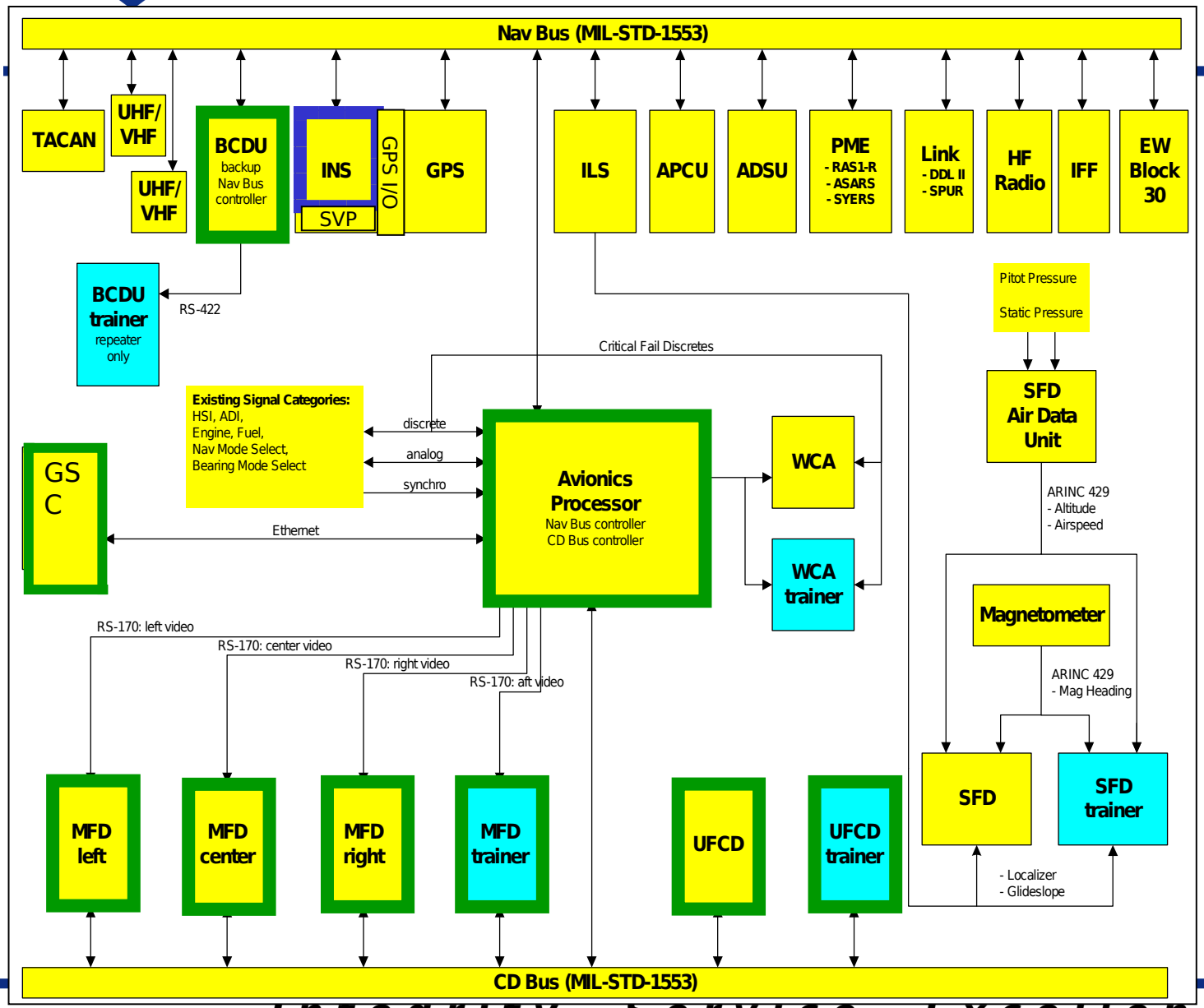
Topics

- Interfaces
- Summary of changes
- Schedule

RAMP Block Diagram



Legend

- LM Aero Release
- Related Northrop Grumman Release

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Summary of RAMP 7.0

- LM Aeronautics' Software Suite 7.0 is completing development
  - Avionics Processor (AVP) 7.0
  - Multi-Function Display (MFD) 6.0.0
  - Up-Front Control Display (UFCD) 4.5.0

- Related Software/Firmware releases at the same time are:
  - Bus Control Display Unit (BCDU) 10.3
  - Ground Support Computer (GSC) 2.5
  - LN-33PIIIG 4.0107 (Northrop Grumman)

- RAMP and LN-33PIIIG Software CDs/Disks will be added to the Ground Support Computer System that installs them (RG2127)

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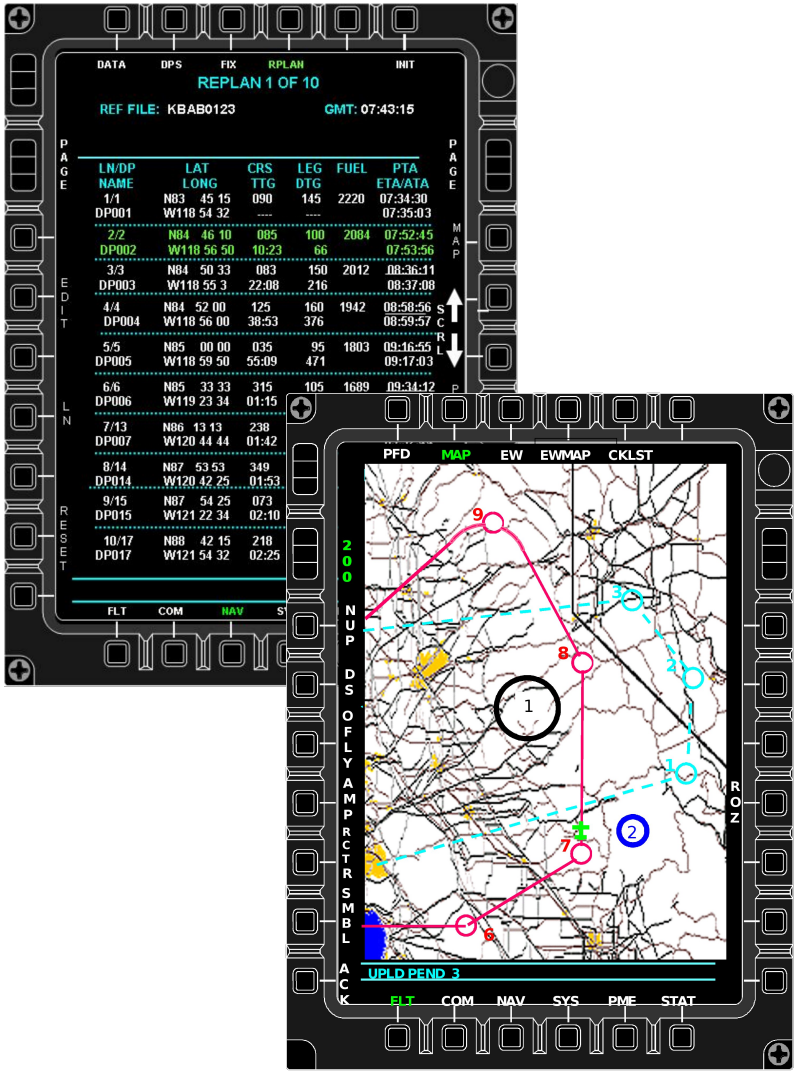
Changes Summary

- Route Re-planning
- Restricted Operating Zones Display
- Expanded Fix Page
- Pilot Checklists
- Corrections to Missing and Additional Land Mass Displays
- Crypto Variable Select for Comm1/Comm2
- IFF Mode S Flight ID
- Maximum Oil Pressure & Temperature Added to Post Flight Data
- Color Coded 1553 Bus Errors Display
- Select MFD Pages from UFCD



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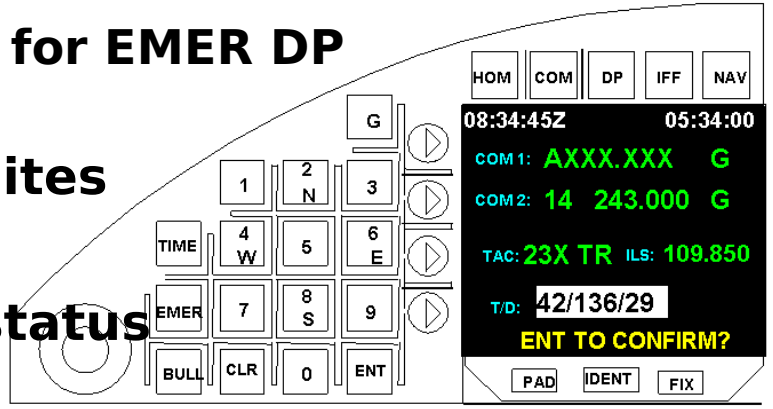
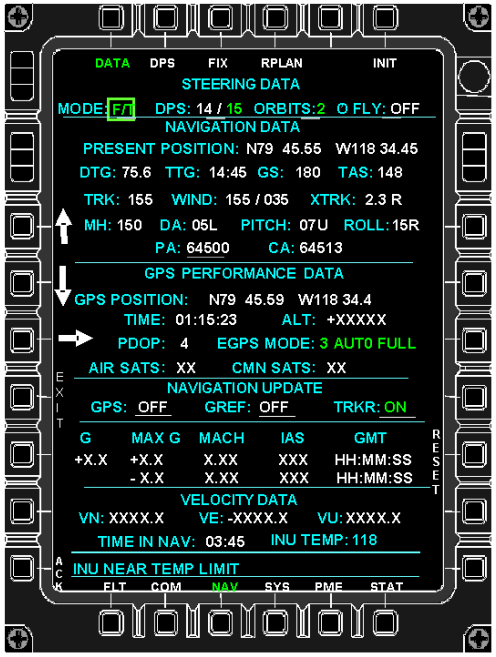
Changes Summary (Cont'd)

- Added Map Amplification Function for EMER DP Points
- Added keyed/unkeyed GPS satellites selection
- Added navigation maintenance status
- Added GPS key status
- Added display of additional tracked GPS satellites
- Added INU Serial Number Display
- New INU Temperature Alerts
- Improved EW Threats display consistency
- Corrected editing of Emergency DPs
- Corrected alerts on Fault page
- UFCD bearing/range accuracy improved
- Added Time to Go data field on Nav page




DATA DPS FIX RPLAN INIT
STEERING DATA
MODE: F/I DPS: 14 / 15 ORBITS: 2 O FLY: OFF
NAVIGATION DATA
PRESENT POSITION: N79 45.55 W118 34.45
DTG: 75.6 TTG: 14:45 GS: 180 TAS: 148
TRK: 155 WIND: 155 / 035 XTRK: 2.3 R
MH: 150 DA: 05L PITCH: 07U ROLL: 15R
PA: 64500 CA: 64513
GPS PERFORMANCE DATA
GPS POSITION: N79 45.59 W118 34.4
TIME: 01:15:23 ALT: +XXXXX
PDOP: 4 EGPS MODE: 3 AUTO FULL
AIR SATS: XX CMN SATS: XX
NAVIGATION UPDATE
GPS: OFF GREF: OFF TRKR: ON
G MAX G MACH IAS GMT
+X.X +X.X X.XX XXX HH:MM:SS
- X.X X.XX XXX HH:MM:SS
VELOCITY DATA
VN: XXXX.X VE: -XXXX.X VU: XXXX.X
TIME IN NAV: 03:45 INU TEMP: 118
INU NEAR TEMP LIMIT
FLT COM NAV SYS PME STAT
EXIT
RESET
ACK

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Changes Summary (cont)

BCDU

- NAV Update Field Legends Consistent
- Added display of three new LN-33PIIIG maintenance status words

GSC

- Added notification of UFCD OFP Auto-Load Recovery
- Enabled the loading of pilot checklist fi[illegible] Processor

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RAMP 7.0 Schedule

- System Integration Testing – Sept 04
- Flight Testing – Oct 04
- Flight Manual Release – Nov 04
- Maintenance Manual Release – Nov 04
- TCTOs release and kits available – Nov 04

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FUTURE RAMP RELEASES

- **RAMP 7.1 release to the field**
  - **Includes Enabling Modified LN-33PIIIG Steering Modes**
    - To-To
    - To-From
    - To-From-Distance
- **RAMP 7.2 Electro Optical View Sight (EOVS) Flight Test (development version for flight test)**
  - **Software Development Scheduled to Complete Feb 05**
- **RAMP 7.3 DDL-II P3I (development version for flight test)**
- **RAMP 8.0**
  - **EOVS Production Release to the field**